

In the Claims:

Please cancel claim 8. Please amend claims 9 and 19- 23. The claims are as follows:

1. (Previously presented) In a telephone system of the common channel signaling and control type having signaling network means for handling switching and control signals separate from voice signal, said signaling network means adapted to respond to and handle calls from wireless subscribers pertaining to requests for services, said signaling network means including means for providing transaction signals in response to calls to the telephone system by a wireless subscriber requesting service, said signaling network means further including message server means which includes:

means for creating message signals, which are compatible with the signaling network means and service nodes, in response to said transaction signals, said means for creating message signals not being comprised by a service node of the network;

message router means connected to said means for creating said message signals for routing said message signals to said service nodes;

means for selecting a subset of the service nodes of the network through execution of a node reduction algorithm in response to a request for service by a subscriber of the wireless subscribers, said subset of the service nodes being limited to only those service nodes of the network which serve the subscriber's geographical area or logical telephone company area for services which the subscriber has subscribed to;

means for selecting at least one service node of the subset of the service nodes to process said message signals by performing arbitration and prioritization among the nodes of the subset

of service nodes in order to provide service responsive to the subscriber's request for service; and

node interface means for connecting the at least one service node to the message server means in order to provide service responsive to the subscriber's request for service, said node interface means adapted to assemble responses from applications provided by the service nodes, said node interface means further adapted to use said assembled responses to construct service lists for delivery to the message service means for performing said arbitration.

2-3. (Canceled)

4. (Previously presented) In a telephone system of the common channel signaling and control type having signaling network means for handling switching and control signals separate from voice signal, said signaling network means adapted to respond to and handle calls from wireless subscribers pertaining to requests for services, said signaling network means including means for providing transaction signals in response to calls to the telephone system by a wireless subscriber requesting service, said signaling network means further including message server means which includes:

means for creating message signals, which are compatible with the signaling network means and service nodes, in response to said transaction signals;

message router means connected to said means for creating said message signals for routing said message signals to one or more interfaces for service nodes;

means for selecting at least one of the service nodes to process message signals by performing arbitration and prioritization among the various service nodes of the network in order

to provide requested services to the wireless subscribers;

means for connecting at least one service node to the message server means in order to convey service provided by the service nodes to said wireless subscriber in response to said subscriber call requesting service, wherein said message server means includes node selector means for routing message signals to service nodes based on the nature of the service requested by the wireless subscriber and the location of the wireless subscriber originating the requesting call and said signaling network means further includes means for validating the wireless subscriber; and

means for assembling responses from applications provided by the service nodes and for using said assembled responses to construct service lists for delivery to the message service means for performing said arbitration.

5-7. (Canceled)

8. (Previously presented) In a telephone system of the common channel signaling and control type having signaling network means for handling switching and control signals separate from voice signals, said signaling network means adapted to respond to and handle calls from and to wireless subscribers pertaining to requests for services, a method for providing requested services from service nodes to wireless subscribers comprising the steps of:

creating transaction signals by the signaling network means in response to calls from wireless subscribers:

conveying said transaction signals to a message server means;

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creating, processing and routing message signals by the message server means in response to said transaction signals, including:

selecting a subset of the service nodes of the network through execution of a node reduction algorithm in response to a request for service by a subscriber of the wireless subscribers, said subset of the service nodes being limited to only those service nodes of the network which serve the subscriber's logical telephone company area for services which the subscriber has subscribed to, said logical telephone company area not being defined in terms of a logical criterion that includes the subscriber's geographical area; and

selecting at least one service node of the subset of the service nodes by performing arbitration and prioritization among nodes of the subset of service nodes in order to provide service responsive to the subscriber's request for service, said creating the message signals not being performed by a service node of the network;

connecting the at least one service node to the message server means in order for the at least one service node to provide said service responsive to the subscriber's request for service; and

routing responses from said at least one service node to the signaling network to provide the service requested by the subscriber of the wireless subscribers.

9. (Currently amended) The method of claim 8 In a telephone system of the common channel signaling and control type having signaling network means for handling switching and control signals separate from voice signals, said signaling network means adapted to respond to and handle calls from and to wireless subscribers pertaining to requests for services, a method for

providing requested services from service nodes to wireless subscribers comprising the steps of:
creating transaction signals by the signaling network means in response to calls from
wireless subscribers:

conveying said transaction signals to a message server means:
creating, processing and routing message signals by the message server means in response
to said transaction signals, including:

selecting a subset of the service nodes of the network through execution of a node
reduction algorithm in response to a request for service by a subscriber of the wireless
subscribers, said subset of the service nodes being limited to only those service nodes of
the network which serve the subscriber's logical telephone company area for services
which the subscriber has subscribed to, said logical telephone company area not being
defined in terms of a logical criterion that includes the subscriber's geographical area; and

selecting at least one service node of the subset of the service nodes by performing
arbitration and prioritization among nodes of the subset of service nodes in order to
provide service responsive to the subscriber's request for service, said creating the
message signals not being performed by a service node of the network;

connecting the at least one service node to the message server means in order for the at
least one service node to provide said service responsive to the subscriber's request for service;
and

routing responses from said at least one service node to the signaling network to provide
the service requested by the subscriber of the wireless subscribers,

wherein said step of creating, processing and routing said message signals includes:

sending and receiving said transaction signals to and from the signaling network and the message server means;

sending and receiving said message signals resulting from the transaction signals to and from an interface to the service nodes;

selecting a node interface from a plurality of node interfaces, said node interfaces connecting said message server means to said service nodes; and

communicating said message signals to and from the node interface.

10-11. (Canceled)

12. (Previously presented) The telephone system according to claim 1, said message server means further comprising service node message handler means for connecting said message router means to said node interface means, said service node message handler means being coupled to a database of pending queries, said pending queries being associated with incoming transactions from said wireless subscribers, said database of pending queries being comprised by said message server means.

13. (Previously presented) The telephone system according to claim 1, said message server means further comprising service node message handler means for connecting said message router means to said node interface means, said service node message handler means being coupled to a database of logged in nodes of the service nodes, said database of logged in nodes being comprised by said message server means.

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14. (Previously presented) The telephone system according to claim 1, said node interface means comprising a list of logged in applications provided by the service nodes.

15. (Previously presented) The telephone system according to claim 1, said node interface means comprising a transaction information manager at which transaction information is stored for later retrieval by an application of the selected at least one service node.

16-18. (Canceled)

19. (Currently amended) The method of claim 8 In a telephone system of the common channel signaling and control type having signaling network means for handling switching and control signals separate from voice signals, said signaling network means adapted to respond to and handle calls from and to wireless subscribers pertaining to requests for services, a method for providing requested services from service nodes to wireless subscribers comprising the steps of:
creating transaction signals by the signaling network means in response to calls from wireless subscribers;

conveying said transaction signals to a message server means;

creating, processing and routing message signals by the message server means in response to said transaction signals, including:

selecting a subset of the service nodes of the network through execution of a node reduction algorithm in response to a request for service by a subscriber of the wireless subscribers, said subset of the service nodes being limited to only those service nodes of

the network which serve the subscriber's logical telephone company area for services which the subscriber has subscribed to, said logical telephone company area not being defined in terms of a logical criterion that includes the subscriber's geographical area; and selecting at least one service node of the subset of the service nodes by performing arbitration and prioritization among nodes of the subset of service nodes in order to provide service responsive to the subscriber's request for service, said creating the message signals not being performed by a service node of the network;

connecting the at least one service node to the message server means in order for the at least one service node to provide said service responsive to the subscriber's request for service;

and

routing responses from said at least one service node to the signaling network to provide the service requested by the subscriber of the wireless subscribers, said message server means comprising service node message handler means coupled to the at least one service node, said method further comprising coupling the service node message handler means to a database of pending queries, said pending queries being associated with incoming transactions from said wireless subscribers, said database of pending queries being comprised by said message server means.

20. (Currently amended) The method of claim 8 In a telephone system of the common channel signaling and control type having signaling network means for handling switching and control signals separate from voice signals, said signaling network means adapted to respond to and handle calls from and to wireless subscribers pertaining to requests for services, a method for

providing requested services from service nodes to wireless subscribers comprising the steps of:
creating transaction signals by the signaling network means in response to calls from
wireless subscribers:

conveying said transaction signals to a message server means;
creating, processing and routing message signals by the message server means in response
to said transaction signals, including:

selecting a subset of the service nodes of the network through execution of a node
reduction algorithm in response to a request for service by a subscriber of the wireless
subscribers, said subset of the service nodes being limited to only those service nodes of
the network which serve the subscriber's logical telephone company area for services
which the subscriber has subscribed to, said logical telephone company area not being
defined in terms of a logical criterion that includes the subscriber's geographical area; and

selecting at least one service node of the subset of the service nodes by performing
arbitration and prioritization among nodes of the subset of service nodes in order to
provide service responsive to the subscriber's request for service, said creating the
message signals not being performed by a service node of the network;

connecting the at least one service node to the message server means in order for the at
least one service node to provide said service responsive to the subscriber's request for service;
and

routing responses from said at least one service node to the signaling network to provide
the service requested by the subscriber of the wireless subscribers, said message server means
comprising service node message handler means coupled to the at least one service node, said

method further comprising coupling the service node message handler means to a database of logged in nodes of the service nodes, said database of logged in nodes being comprised by said message server means.

21. (Currently amended) The method of claim 8 In a telephone system of the common channel signaling and control type having signaling network means for handling switching and control signals separate from voice signals, said signaling network means adapted to respond to and handle calls from and to wireless subscribers pertaining to requests for services, a method for providing requested services from service nodes to wireless subscribers comprising the steps of:
creating transaction signals by the signaling network means in response to calls from wireless subscribers;
conveying said transaction signals to a message server means;
creating, processing and routing message signals by the message server means in response to said transaction signals, including:
selecting a subset of the service nodes of the network through execution of a node reduction algorithm in response to a request for service by a subscriber of the wireless subscribers, said subset of the service nodes being limited to only those service nodes of the network which serve the subscriber's logical telephone company area for services which the subscriber has subscribed to, said logical telephone company area not being defined in terms of a logical criterion that includes the subscriber's geographical area; and
selecting at least one service node of the subset of the service nodes by performing arbitration and prioritization among nodes of the subset of service nodes in order to

provide service responsive to the subscriber's request for service, said creating the message signals not being performed by a service node of the network;
connecting the at least one service node to the message server means in order for the at least one service node to provide said service responsive to the subscriber's request for service;
and
routing responses from said at least one service node to the signaling network to provide the service requested by the subscriber of the wireless subscribers, said method further comprising providing node interface means connecting the service nodes to the message server means, said node interface means including a list of logged in applications provided by the service nodes.

22. (Currently amended) The method of claim 8 In a telephone system of the common channel signaling and control type having signaling network means for handling switching and control signals separate from voice signals, said signaling network means adapted to respond to and handle calls from and to wireless subscribers pertaining to requests for services, a method for providing requested services from service nodes to wireless subscribers comprising the steps of:
creating transaction signals by the signaling network means in response to calls from wireless subscribers;
conveying said transaction signals to a message server means;
creating, processing and routing message signals by the message server means in response to said transaction signals, including:
selecting a subset of the service nodes of the network through execution of a node

reduction algorithm in response to a request for service by a subscriber of the wireless subscribers, said subset of the service nodes being limited to only those service nodes of the network which serve the subscriber's logical telephone company area for services which the subscriber has subscribed to, said logical telephone company area not being defined in terms of a logical criterion that includes the subscriber's geographical area; and selecting at least one service node of the subset of the service nodes by performing arbitration and prioritization among nodes of the subset of service nodes in order to provide service responsive to the subscriber's request for service, said creating the message signals not being performed by a service node of the network; connecting the at least one service node to the message server means in order for the at least one service node to provide said service responsive to the subscriber's request for service; and

routing responses from said at least one service node to the signaling network to provide the service requested by the subscriber of the wireless subscribers, said method further comprising providing node interface means connecting the service nodes to the message server means, said node interface means including a transaction information manager at which transaction information is stored for later retrieval by an application of the selected at least one service node.

23. (Currently amended) The method of claim 8 In a telephone system of the common channel signaling and control type having signaling network means for handling switching and control signals separate from voice signals, said signaling network means adapted to respond to and

handle calls from and to wireless subscribers pertaining to requests for services, a method for providing requested services from service nodes to wireless subscribers comprising the steps of:
creating transaction signals by the signaling network means in response to calls from wireless subscribers;

conveying said transaction signals to a message server means;

creating, processing and routing message signals by the message server means in response to said transaction signals, including:

selecting a subset of the service nodes of the network through execution of a node reduction algorithm in response to a request for service by a subscriber of the wireless subscribers, said subset of the service nodes being limited to only those service nodes of the network which serve the subscriber's logical telephone company area for services which the subscriber has subscribed to, said logical telephone company area not being defined in terms of a logical criterion that includes the subscriber's geographical area; and

selecting at least one service node of the subset of the service nodes by performing arbitration and prioritization among nodes of the subset of service nodes in order to provide service responsive to the subscriber's request for service, said creating the message signals not being performed by a service node of the network;

connecting the at least one service node to the message server means in order for the at least one service node to provide said service responsive to the subscriber's request for service;
and

routing responses from said at least one service node to the signaling network to provide the service requested by the subscriber of the wireless subscribers, said method further

comprising providing node interface means connecting the service nodes to the message server means, said node interface means assembling responses from applications provided by the service nodes, said node interface using said assembled responses to construct service lists for delivery to the message service means for performing said arbitration.

24. (Previously presented) In a telephone system of the common channel signaling and control type having signaling network means for handling switching and control signals separate from voice signal, said signaling network means adapted to respond to and handle calls from wireless subscribers pertaining to requests for services, said signaling network means including means for providing transaction signals in response to calls to the telephone system by a wireless subscriber requesting service, said signaling network means further including message server means which includes:

means for creating message signals, which are compatible with the signaling network means and service nodes, in response to said transaction signals, said means for creating message signals not being comprised by a service node of the network;

message router means connected to said means for creating said message signals for routing said message signals to said service nodes;

means for selecting a subset of the service nodes of the network through execution of a node reduction algorithm in response to a request for service by a subscriber of the wireless subscribers, said subset of the service nodes being limited to only those service nodes of the network which serve the subscriber's logical telephone company area for services which the subscriber has subscribed to, said logical telephone company area not being defined in terms of a

logical criterion that includes the subscriber's geographical area;

means for selecting at least one service node of the subset of the service nodes to process said message signals by performing arbitration and prioritization among the nodes of the subset of service nodes in order to provide service responsive to the subscriber's request for service; and

node interface means for connecting the at least one service node to the message server means in order to provide service responsive to the subscriber's request for service, said node interface means adapted to assemble responses from applications provided by the service nodes, said node interface means further adapted to use said assembled responses to construct service lists for delivery to the message service means for performing said arbitration.

25. (Previously presented) The telephone system according to claim 24, said message server means further comprising service node message handler means for connecting said message router means to said node interface means, said service node message handler means being coupled to a database of pending queries, said pending queries being associated with incoming transactions from said wireless subscribers, said database of pending queries being comprised by said message server means.

26. (Previously presented) The telephone system according to claim 24, said message server means further comprising service node message handler means for connecting said message router means to said node interface means, said service node message handler means being coupled to a database of logged in nodes of the service nodes, said database of logged in nodes being comprised by said message server means.

27. (Previously presented) The telephone system according to claim 24, said node interface means comprising a list of logged in applications provided by the service nodes.

28. (Previously presented) The telephone system according to claim 24, said node interface means comprising a transaction information manager at which transaction information is stored for later retrieval by an application of the selected at least one service node.